REMARKS

In further response to the Official Action mailed August 13, 2004 and in supplement to the Amendment filed on February 14, 2005, please consider additional Examples 17 – 19 regarding the medical use of the claimed glucoprotein according to the originally disclosed specification (see attachment). It is respectfully submitted that a person skilled in the art will can make and use the present invention as disclosed.

It is respectfully submitted that in view of the present amendments to the Claims 1 – 6 and the enclosed experiments results, the rejection under 35 U.S.C. § 112, first paragraph has been overcome. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, first paragraph, is respectfully requested.

Having overcome all outstanding grounds of rejection, the application is now in condition for allowance, and prompt action toward that end is respectfully solicited.

Respectfully submitted,

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Enclosure:

Additional Examples 17 – 19 showing enablement of the present invention

Example 17.

For investigation a pharmaceutical composition of the following make-up was used.

Acid glycoprotein from eye retina	1.10^{-7} g
Water	up to 1 l

A sick woman M., aged 45. Diagnosis: central chorioretinal retina dystrophy, dry form. Vision before treatment OD – 0.8, not subject to correction; OS – 0.7, not subject to correction. She underwent a course of treatment with experimental means of the above composition. The preparation was administered as follows: a vial of 10 ml of the pharmaceutical composition was dissolved in 1 l of boiled cooled water and the resultant solution was administered by 100 ml 30 minutes before meal 3 times a day during 1 month. After treatment, vision OD – 1.0; OS – 0.8. Improvement of vision functions was confirmed by improved electrophysiological indicators and by data of computer perimetry ((increase in foveolar photosensitivity. The sick woman more rarely used spectacles, sensation of glimmering and "flies" or spots in the eyes disappeared. When examined in a month, data were stable.

Example 18.

For investigation an experimental pharmaceutical means of the following make-up was used:

Glycoprotein from mammal blood serum (pI in the region of pH 4.65-5.1)	1.10^{-10} g
Chlorous calcium	1.10^{-3} g
Chlorous sodium	8.9 g
Water	up to 1 l

A patient F. Had an injury caused by a needle of a conifer about 2 months back. A wound of the cornea epithelium quickly healed, however, in 2 weeks erosion occurred again. In waking up, the sick woman suffered from sharp pain in the injured eye, which lasted until the moon at every eyelid movement. The patient tried all possible medicaments prescribed by the oculist at her domicile, however, no relief came. When she visited the Helmholz MNII of eye diseases, a local erosion was revealed in the upper half of the cornea with a diameter of about 3 mm and the sick woman was proposed to undergo treatment with the experimental preparation of the above composition. 6-fold preparation instillations were carried out within a week. Already after 24 hours of therapy the sick woman felt improvement in her condition. During examination on the second day, cornea erosion was not found, however in the place of its localisation a region of

slight "colouring" of epithelium was revealed. Treatment was continued. By the end of the first week, sound epithelium was revealed on the cornea. The patient was observed during 6 months and no erosion recidivation was observed.

Example 19. Effect of acid glycoprotein from cattle pancreas on pancreas function in rats with experimental diabetes mellitus at intragastric administration.

For investigation an experimental pharmaceutical means of the following composition was used:

Acid glycoprotein from cattle pancreas	1.10^{-8} g
Water	up to 1 l

Investigation was conducted on adult male rats of the Wistar line having weight of 180-250 g. Experimental model of diabetes mellitus in rats was induced in intact animals by administering streptozotocine according to the method described in S.Robertson, N.E.Cameron and M.A.Cotter, Diabetologie, 1992, v.35, p.1113-1117; H.Oxlund and T.T.Andreassen, Diabetologie, 1992, v.35, p.19-25; N.E.Cameron, M.A.Cotter and S.Robertson, Diabetologie, 1992, v.35, p.12-18; N.E.Cameron, M.A.Cotter, K.C.Dines and E.K.Maxfield, Diabetologie, 1992, v.36, p.516-522. In operation, streptozotocin of the company Sigma (USA) was used, which was dissolved just before administration in a citrate buffer pH=4.5and administered intra-abdominally in the dose of 40 mg/kg of the body weight. Against the background of the clinical diabetes picture, the animals were administered the experimental pharmaceutical means during 7 days intragastrically by 1 ml in the morning and in the evening. Control animals with streptozotocin diabetes received twice a physiological salt solution of the same volume.

In the control animals that received the physiological salt solution, in 24 hours following streptozotocin administration, glucose content in blood increased on the average by 346% over the starting content. Glucose level in blood taken on the 4^{th} and 8^{th} days after streptozotocin administration was 278 and 261% over the initial level, respectively. 10 days after ceasing to administer the salt solution (i.e. on the 18^{th} day after streptozotocin administration), glucose concentration in blood increased again and was nearly 300% over the initial concentration. Insulin level in blood after effect of streptozotocin in the control animals fell by 50% and remained virtually at the same level to the end of the experiment.

In the test group animals, the glucose level in blood in 24 hours after streptozotocin administration increased by 362%, on the 4^{th} and 8^{th} days was 248 and 196%, and 10 days after ceasing to administer the experimental pharmaceutical, was 200% over the

initial level. Insulin content in blood serum 24 hours after streptozotocin administration reduced the same as in the control group, by 50%, but already on the 8th day was 55% over the starting content and 10 days after the last administration of the experimental pharmaceutical was 71%.

During the period of observing the animals having experimental diabetes mellitus of the control and test groups, a pronounced clinical picture of the disease was noted – slackness, significant polyuria. However, as the experiment proceeded, the test group animals who received the experimental pharmaceutical, already starting from the 4th day after streptozotocin administration, had a less pronounced clinical picture of the disease over the control rats. They were more active, clean. Biochemical data also support this.

As the investigation showed, the experimental preparation based on acid glycoprotein from cattle pancreas exerts a favourable effect on the clinical state of sick animals and significantly influences endocrine function of the pancreas.